BAB V

KESIMPULAN DAN REKOMENDASI KEBIJAKAN

A. Kesimpulan

Setelah melakukan analisis dan pembahasan, maka dapat kesimpulan sebagai berikut:

1. Melalui uji kointegrasi dengan *Johansen's Cointegration Test* menunjukkan bahwa:
    a. Tingkat SBI berpengaruh tidak signifikan terhadap *return* saham untuk jangka pendek dan jangka panjang.
    b. Emas mempunyai pengaruh yang signifikan terhadap *return* saham untuk jangka pendek dan jangka panjang.
    c. Minyak bumi mempunyai pengaruh yang signifikan terhadap *return* saham untuk jangka pendek dan jangka panjang.
2. Hasil pengujian hubungan kausalitas Granger dalam kerangka *multivariate* menunjukkan bahwa:
    a. Hasil uji kausalitas Granger menginformasikan adanya hubungan kausalitas dua arah (bi-directional causality) antara variabel suku bunga SBI dan inflasi. Hal ini menunjukkan bahwa suku bunga Sertifikat Bank Indonesia bertujuan untuk menghambat laju inflasi.Semakin tinggi suku bunga SBI, laju inflasi juga akan semakin lambat.

b. Berdasarkan suku bunga SBI terhadap *return* saham PT United Tractors, Tbk., hasil uji kausalitas Granger menunjukkan hubungan satu arah antara suku bunga SBI dan *Return* saham PT United Tractors. Hal ini menginformasikan bahwa suku bunga SBI turut mempengaruhi *return* saham PT United Tractors. Semakin tinggi suku bunga SBI, investor akan lebih tertarik untuk menanamkan dana surplusnya di deposito berjangka daripada investasi di saham.

c. Berdasarkan harga emas terhadap *return*, hasil uji kausalitas Granger menginformasikan bahwa terdapat hubungan satu arah. Hal ini menginformasikan bahwa harga emas mempengaruhi *return* saham PT United Tractors. Harga emas yang tinggi dapat membuat investor menanamkan dananya di komoditas emas daripada menanamkan dana di saham. Hal ini mengakibatkan *return* saham pun akan mengalami penurunan.

3. Berdasarkan analisis *impulse respone function*:

a. Respon *Return* Saham PT United Tractors terhadap *Return* Saham PT United Tractors

Guncangan *return* saham PT United Tractors terhadap *Return* Saham PT United Tractors pada periode pertama akan menyebabkan peningkatan pada *return* saham PT United Tractors sebesar 14,45 persen. Pada periode kedua, guncangan *return* saham PT United Tractors direspon positif oleh *return* saham PT United Tractors sendiri. Pada periode ketiga, guncangan *return* saham PT United

Tractors itu direspon positif kembali hingga periode kesepuluh sebesar 54,3%. Respon *return* saham PT United Tractors terhadap guncangan ini mulai mencapai keseimbangan pada periode jangkapanjangnya, yakni pada periode ketujuh sebesar 58,10 persen.

b. Respon *Return* Saham PT United Tractors terhadap Guncangan Kurs Rupiah terhadap Dollar Amerika Serikat

Return Saham PT United Tractors tampak belum merespon guncangan perubahan Kurs Rupiah pada periode pertama. Guncangan *return* saham langsung direspon negatif oleh perubahan kurs pada periode kedua. Pada periode kedua ini, guncangan perubahan kurs mengakibatkan penurunan *return* saham PT United Tractors sebesar 19,6%. Respon negatif ini hanya ditunjukkan oleh perubahan kurs pada periode kedua. Pada periode ketiga, guncangan perubahan kurs direspon positif oleh *return* saham PT United Tractors hingga periode kesepuluh sebesar 75,87 %.

c. Respon *Return* Saham PT United Tractors terhadap guncangan perubahan harga emas

Guncangan perubahan harga emas pada bulan pertama ternyata belum direspon oleh *return* saham PT United Tractors. Mulai periode kedua, guncangan pada perubahan harga emas direspon positif oleh perubahan harga emas sebesar 14,18 persen. Periode kedua menjadi respon tertinggi perubahan harga emas terhadap *return* saham PT United Tractors sebesar 45,00 %. Pada periode

kesepuluh, respon *return* saham PT United Tractors adalah sebesar 21,65 %.

d. Respon *Return* Saham terhadap Guncangan Perubahan Harga Batubara

Return Saham PT United Tractors tampak belum merespon guncangan perubahan harga Batubara sebesar 0,0000 pada periode pertama. Guncangan ini terus direspon negatif hingga periode 10 sebesar -12,89%.

e. Respon *Return* Saham PT United Tractors terhadap Guncangan Perubahan Harga Minyak bumi

Sama halnya dengan guncangan dari variabel Batubara terhadap *return* saham PT United Tractors, bahwa pada bulan pertama guncangan sebesar satu standar deviasi pada Minyak Bumi, yakni sebesar 0,00000 belum direspon oleh *return* saham PT United Tractors. Pada bulan kedua, perubahan harga minyak bumi langsung direspon positif oleh *return* saham PT United Tractors sebesar 33,52 persen. Hal ini berlangsung terus hingga pada periode kesepuluh sebesar 20,34 persen.

f. Respon *Return* Saham PT United Tractors terhadap Guncangan Perubahan Inflasi

Sama halnya dengan guncangan dari variabel Batubara dan minyak bumi terhadap *return* saham PT United Tractors, bahwa pada bulan pertama guncangan sebesar satu standar deviasi pada inflasi, yakni

sebesar 0,00000 belum direspon oleh *return* saham PT United Tractors. Pada bulan kedua, perubahan inflasi langsung direspon negatif oleh *return* saham PT United Tractors sebesar 32,68 persen. Hal ini berlangsung terus hingga pada periode kesepuluh sebesar 11,66 persen.

g. Respon *Return* Saham PT United Tractors terhadap Guncangan Perubahan suku bunga SBI

Sama halnya dengan guncangan dari variabel Batubara, minyak bumi dan inflasi terhadap *return* saham PT United Tractors, bahwa pada bulan pertama guncangan sebesar satu standar deviasi pada suku bunga SBI, yakni sebesar 0,00000 belum direspon oleh *return* saham PT United Tractors. Pada bulan kedua, perubahan suku bunga SBI langsung direspon negatif oleh *return* saham PT United Tractors sebesar 2,09 persen. Hal ini berlangsung terus hingga pada periode ketiga sebesar 1,74 persen. Namun, pada bulan keempat, suku bunga SBI direspon positif oleh *return* saham PT United Tractors sebesar 7,05 %. Respon positif ini berlangsung terus hingga periode kesepuluh sebesar 4,91 persen.

4. Perubahan harga emas berpengaruh negatif dan secara signifikan terhadap *return* saham PT United Tractors. Selain itu, tingkat inflasi juga berpengaruh secara negatif dan signifikan terhadap *return* saham PT United Tractors.

5. Berdasarkan analisis *Variance Decomposition*:

Pada periode pertama, variabel *return* saham PT United Tractors dipengaruhi oleh variabel itu sendiri (100%). Namun demikian, pada periode selanjutnya pengaruh *return* saham PT United Tractors terhadap *return* saham PT United Tractors itu sendiri berkurang sebesar 12,87 sehingga *return* saham PT United Tractor sebesar 87,13%, Minyak bumi sebesar 2,78%, kurs sebesar 0,43%, inflasi sebesar 3,67%, emas sebesar 0,91%, batu bara sebesar 5,04% dan SBI sebesar 0,01%. Selanjutnya pada periode ketiga, pengaruh *return* saham PT United Tractors terhadap *return* saham PT United Tractors itu sendiri berkurang sebesar 20,75% sehingga *return* saham PT United Tractor dijelaskan *return* saham PT United Tractors sebesar 79,25%, Minyak bumi sebesar 5,30%, kurs sebesar 0,53%, inflasi sebesar 2,97%, emas sebesar 6,95%, batu bara sebesar 4,95% dan SBI sebesar 0,02%. Pada periode kesepuluh, pengaruh *return* saham PT United Tractors terhadap *return* saham PT United Tractors itu sendiri berkurang sebesar 24,35 sehingga *return* saham PT United Tractor dijelaskan *return* saham PT United Tractors sebesar 75,63%, Minyak bumi sebesar 6,89%, kurs sebesar 0,28%, inflasi sebesar 2,80%, emas sebesar 8,20%, batu bara sebesar 5,90% dan SBI sebesar 0,25%. Perubahan harga emas lebih kapabel menjelaskan *return* saham PT United Tractors jika dibandingkan dengan minyak bumi, kurs, inflasi, batubara dan SBI. Hal ini terbukti dengan persentase varians dekomposisi perubahan harga emas terhadap *return* saham PT United Tractors yang terus meningkat di *long term* hingga mencapai 8,20 persen. Kendatipun demikian,

persentase minyak bumi, emas dan batubara tidak terlalu jauh besar persentasenya.

B. Keterbatasan Penelitian

Penelitian ini mempunyai beberapa keterbatasan diantaranya :

1. Variabel dependen yang digunakan dalam tulisan ini hanya satu emiten.
2. Variabel independen yang digunakan dalam tuliasan ini terbatas hanya 6 variabel.
3. Penelitian ini menggunakan data *time series* yang mengikutsertakan data pada periode Januari 2004 sampai Mei 2010, hal ini dikarenakan berdasarkan grafik harga saham PT United Tractors harga saham cenderung mengalami peningkatan.

C.SARAN

1. Untuk penelitian mendatang dapat menggunakan lebih dari satu emiten.
2. Untuk penelitian mendatang dapat disertakan dengan menggunakan data jumlah uang beredar dan perumbuhan ekonomi.
3. Perlu dilihat peristiwa-peristiwa abnormal sepertinya krisis global yang terjadi pada tahun-tahun penelitian, sehingga peristiwa ini diberi tekanan yang berbeda dari peristiwa normal.

DAFTAR PUSTAKA

Abbas Valadkhani, Surachai Chancharat and Charles Havie, 2006, *"The Interplay Between the Thai and Several Other International Stock Markets"*.www.ideas.repec.org.

Ainiyatul, Himaniyah. 2008. *Analisis Pengaruh Variabel Makroekonomi terhadap IHSG BEI Periode 2001-2007(Studi Pada Laboratorium Investasi Ekonomi UIN Malang)*.Universitas Islam Negeri Malang.

Ang, Robert. 1997." Buku Pintar : Pasar Modal Indonesia ", First Edition Mediasoft Indonesia.

AntonelloD"Agostino, Luca Sala, and Paolo Surico, 2005. *"The Fed and the Stock Market*".www.ideas.repec.org.

Bhar, Ramaprasad and Biljana Nikolova. 2009. "*Oil Price and Equity Returns in the BRIC Countries"*, The World Economy.www.ebsco.com.

Boediono. 1999. *Ekonomi Makro*. Edisi ke-4. Yogyakarta: BPFE UGM.

Eryi it, Mehmet. 2009. " *Effect of Oil Price Changes on the Sector Indices of Istanbul Stock Exchange", International Research Journal of Finance and Economics*

Fahmi, Irham dan Yovi Lavianti Hadi. 2009. *Teori Portofolio dan Analisis Investasi*. Bandung: Penerbit Alfabeta.

Fakhruddin, Hendy M. 2008. *Go Public Strategi Pendanaan dan Peningkatan Nilai Perusahaan*. Jakarta: PT Elex Media Komputindo.

Ferdian, Ilham Reza. 2008. *SBI, Instrumen Moneter atau Instrumen Investasi*. Republika.Senin 21 Juli 2008.

Gujarati, D.N. 2003. "*Basic Econometris*". Fourth Edition. McGraw Hill, New York.

Gunawan dan Adler Manurung. 2008. "*Pengaruh Komoditas terhadap Indeks Harga Saham Gabungan*".www.gunawan.com

Graham Smith. 2001. "*The Price Of Gold And Stock Price Indices For The UnitedStates"*. www.ideas.repec.org.

Hidayati, Siti. 2009. *"Analisa Hubungan Kinerja Sistem Keuangan (Perbankan dan Pasar Modal) terhadap Pertumbuhan Ekonomi Indonesia Periode 1999-2008"*. Fakultas Ekonomi Universitas Indonesia, Jakarta. Tesis.

Huda, Nurul dan Mustafa Edwin Nasution. 2008. *"Investasi Pada Pasar Modal Syariah"*. Jakarta: Kencana.

Husnan, Suad. 2001. *"Dasar-Dasar Teori Fortofolio dan Analisis Sekuritas"*. EdisiKe-3. Yogyakarta: Penerbit AMP YKPN.

Husnan, Suaddan Enny Pudjiastuti. 2004. *"Dasar-Dasar Teori Portofolio dan Analisis Sekuritas"*. Edisi Tiga. UPP AMP YKPN, Yogyakarta.

Ishomuddin. 2010. *"Analisis Pengaruh variable Makroekonomi Dalam dan Luar Negeri terhadap Return Saham PT United Tractors di BEI periode 1999.1-2009.12 (*Analisis Seleksi Model OLS-ARCH/GARCH)". Universitas Diponegoro. Semarang.

Jensen C, Michael. 2001. *"Value Maximization, Stakeholder Theory, and The Corporate Objective Function*". *Journal of Applied Corporate Finance. Volume 14.*

Johnson, Robert and Luc Soenen. 2009. *"Commodity Price and Stock Market Behaviour in South American Countries in the Short Run". Emerging Market Finance & Trade I*. July-August. Volume 45.

Jogiyanto, Hartono. 2010. Teori Portofolio dan Analisis Investasi. Edisi ke-7 BPFE, Yogyakarta.

Kandir, Yilmaz Serkan. 2008. *"Macroeconomic Variables, Firm Characteristics and Stock Returns : Evidence From Turkey". International Research Journal of Finance and Economics*. 12.

Kavussanos G, Manolis, Stelios N. Marcoulis, Angolis G, Arkoulis. 2002. "*Macroecomics factors and International Industry Returns*". *Applied Financial Economics*. 12.

Kewal, Suramaya Suci. "Pengaruh Inflasi, Suku Bunga, Kurs, dan Pertumbuhan PDB Terhadap Indeks Harga Saham Gabungan". Dalam Jurnal *Economia*, Volume 8, Nomor 1, April 2012, hal 53-64.

Krugman Paul R dan Obstfeld Maurice. 1999. *Ekonomi Internasional: Teori dan Kebijakan*. Raja Grafindo Persada, Jakarta.

Kuncoro, Mudrajad. 2007. Metode Kuantitatif. Edisi Ketiga. UPP STIM YKPN.

Kuntara, D.D., 2011. *"Pengaruh Nilai Tukar Kurs Rupiah, Harga Komoditas Emas dan Harga Minyak Bumi terhadap Return Saham PT.Aneka Tambang, Tbk.* Universitas Gajah Mada", Jakarta.

Martalena dan Maya Malinda. 2011. *Pengantar Pasar Modal*. Yogyakarta: Penerbit Andi, Yogyakarta.

Mankiw, N, Gregory. 2003. *Macroeconomics* 5th Edition. First Published in the US by Worth Publishers, New York and Basingstone. Edisi Indonesia, Penerbit Erlangga, Jakarta.

Manurung, Adler Haymans. 2004. *Strategi Memenangkan Transaksi Saham di Bursa*. PT Elex Media Komputindo, Jakarta.

Nachrowi D, Usman, Hadi. 2006.*"Pendekatan Populer dan Praktis Ekonometrika Untuk Analisis Ekonomi dan Keuangan"*. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia, Jakarta.

Na'im, Ainun. 1997. *"Peran Pasar Modal Dalam Pembangunan Ekonomi Indonesia"*. Kelola. No 14/VI.

Nopirin. 1997. *Ekonomi Moneter*. BPFE UGM, Yogyakarta.

Novianto, Aditya. 2011. *Analisis Pengaruh NilaiTukar (Kurs) DolarAmerika/Rupiah (US$/Rp, Tingkat SukuBunga SBI, Inflasi, dan JumlahUangBeredar (M2) Tehadap Indeks Harga Saham Gabungan (IHSG) di Bursa Efek Indonesia (BEI) Periode 1999.1-2010.6*. Universitas Diponegoro. Semarang.

Park and Killian.2007. *"The Impact of Oil Price Stocks on the US Stock Market"*.

Pilinkus, Donatas, Vytautas Boguslauskas. 2009. *"The Short Run Relationship between Stock Market Prices and Macroeconomic Variables in Lithuania : An Application of the Impulse Response Function"*. Inzinerine Ekonomika-Engineering Economics.5.

Rahardja, Prathama dan Manurung, Mandala. 2008. *"Pengantar Makro Ekonomi"*. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.Jakarta

Republik Indonesia. 1995. *Undang- Undang Republik Indonesia Nomor 8 tentang Pasar Modal*. Lembaran Negara Tahun 1995 Nomor 64.

Samsul, Mohamad. 2006. *Pasar Modal dan Manajemen Portofolio*. Penerbit Erlangga, Surabaya.

Samuelson, Paul A dan William Nordhaus. 2004. *Makro Ekonomi*. Edisi ke-17. PT. Media Global Edukasi, Jakarta.

Sinungan, Muchdarsyah. 2000. *Manajemen Dana Bank*. Edisi Kedua. PT. Bumi Aksara, Jakarta.

Sukamulja, Sukmawati. *Analisis Fundamental, Teknikal Dan Program Metastock*. Yogyakarta.

Sukirno, Sadono. 2003. *Pengantar Teori Makro Ekonomi*. Edisi ke-2. PT. Raja Grafindo Persada, Jakarta.

Sunariyah.2006. *Pengantar Pengetahuan Pasar Modal*. Edisi ke-5. UPP STIM YKPN, Yogyakarta.

Surjadi, A, J. 2006. *"Masalah Dampak Tingginya Harga Minyak terhadap Perekonomian"*. www.csis.or.id.

Tandelilin, Eduardus. 2001. *Analisis Investasi Manajemen Portfolio*. Cetakan Pertama. BPFE, Yogyakarta.

Tandelilin, Eduardus. 2010. *Portofolio dan Investasi :Teori dan Aplikasi*. *Edisi 1*.Kanisius, Yogyakarta.

Thobarry, Achmad Ath. 2009. *Analisis Pengaruh NilaiTukar, SukuBunga, Laju Inflasi dan Pertumbuhan GDP terhadap Indeks Harga Saham Sektor Properti (Kajian Empiris Pada Bursa Efek Indonesia Periode Pengamatan Tahun 2000-2008)*. Universitas Diponegoro. Semarang.

Widoatmodjo, Sawidji, 2005, *Cara Sehat Investasi di Pasar Modal*, PT. Elex Media Komputindo, Jakarta.

Witjaksono, Ardian Agung. 2010. *Analisis Pengaruh Tingkat Suku Bunga SBI, Harga Minyak Dunia, Harga Emas Dunia, Kurs Rupiah, Indeks Nikkei 225, dan Indeks Dow Jones terhadap IHSG (studi kasus pada IHSG di BEI selama periode 2000-2009)*. Universitas Diponegoro. Semarang.

Winarno, W.W., 2009, *Analisis Ekonometrika dan Statistika dengan Eviews*, Edisi Kedua, SekolahTinggi Ilmu Manajemen YKPN, Yogyakarta.

Widarjono, A., 2009, *Ekonometrika, Pengantar dan Aplikasinya*, Ekonisia, Fakultas Ekonomi UII, Yogyakarta.

Wu, Ying. 2001. *"Exchange Rates, Stock Prices, and Money Markets: Evidence from Singapore"*. Journal Asian Economics.12. p.445-448.

www.bi.go.id. *Suku bunga SBI*

www.bi.go.id. *Inflasi*

www.bi.go.id. *Kurs rupiah terhadap US*

www.eia.gov.

www.goldfixing.com.

www.yahoofinance.com.

LAMPIRAN

Lampiran 1

DATA MENTAH VARIABEL-VARIABEL

Bulan	Inflasi	SBI	Kursrupiah	Minyakbumi (rupiah)	Emas (rupiah)	Batubara (rupiah)	Return
Jan-04	4,82	7,86	8483	291051,73	3391079,25	343137,35	0
Feb-04	4,60	7,7	8489	294483,41	3360370,65	379712,97	16
Mar-04	5,11	7,42	8630	317066,2	3656531	452470,9	-5,172
Apr-04	5,92	7,33	8704	319872	3381504	496563,2	20
May-04	6,47	7,32	9256	372831,68	3639922	559710,32	-33
Jun-04	6,83	7,34	9462	359839,86	3745059,6	603675,6	2,27
Jul-04	7,20	7,36	9214	375746,92	3606359,6	605912,64	8,89
Aug-04	6,67	7,37	9375	420937,5	3817968,75	595125	12,5
Sep-04	6,27	7,39	9216	423383,04	3830630,4	546785,28	5,45
Oct-04	6,22	7,41	9135	486712,8	3887399,25	554220,45	27,58
Nov-04	6,18	7,41	9063	439283,61	4109164,2	512965,8	8,10
Dec-04	6,40	7,43	9336	402848,4	4066761,6	522629,28	13,75
Jan-05	7,32	7,42	9,165	429288,6	3886234,95	520846,95	25,27
Feb-05	7,15	7,43	9,260	444202,2	3921610	495039,6	6,14
Mar-05	8,81	7,44	9,480	514858,8	4117353,6	517228,8	-4,95
Apr-05	8,12	7,7	9,570	507592,8	4107731,1	525488,7	2,60
May-05	7,40	7,95	9,495	473135,85	4005655,65	522035,1	11,01
Jun-05	7,42	8,25	9,713	546453,38	4182903,45	530718,32	13,74
Jul-05	7,84	8,49	9,819	576375,3	4167870,93	535528,26	19,46
Aug-05	8,33	9,51	10,240	665292,8	4484300,8	538931,2	12,92
Sep-05	9,06	10	10,310	676026,7	4701772,4	499828,8	0
Oct-05	17,89	11,00	10,090	629313,3	4741190,1	458994,1	-451
Nov-05	18,38	12,25	10,035	585040,5	4783283,1	409227,3	-270
Dec-05	17,11	12,75	9,830	584196,9	5014184,7	402636,8	2,083
Jan-06	17,03	12,75	9,395	615466,45	5165934,7	434706,65	4,08
Feb-06	17,92	12,74	9,230	568844,9	5122557,7	471745,3	3,92
Mar-06	15,74	12,73	9,075	570817,5	5055591,75	483697,5	10,69
Apr-06	15,40	12,74	8,775	611529,75	5358453,75	497103,75	23,86
May-06	15,60	12,5	9,220	654066,8	6227095,8	519639,2	-0,91
Jun-06	15,53	12,5	9,300	659928	5544102	521916	0
Jul-06	15,15	12,25	9,070	674898,7	5747659	512636,4	3,70
Aug-06	14,90	11,75	9,100	664755	5756569	496678	2,67
Sep-06	14,55	11,25	9,235	589839,45	5524192,3	465998,1	5,21
Oct-06	6,29	10,75	9,110	536396,8	5336364,7	429992	8,26
Nov-06	5,27	10,25	9,165	544126,05	5753970,3	451742,85	-152
Dec-06	6,60	9,75	9,020	559510,6	5680705,8	480766	1,55
Jan-07	6,26	9,5	9,090	496041,3	5737244,4	499495,5	3,05

Feb-07	6,30	9,25	9,160	542821,6	6089018,4	519188,8	2,96
Mar-07	6,52	9	9,118	552186,08	5971287,02	541062,12	6,47
Apr-07	6,29	9	9,083	581039,51	6170626,88	546160,79	6,75
May-07	6,01	8,75	8,828	560224,88	5886951,8	529680	-4
Jun-07	5,77	8,75	9,054	610963,92	5934806,46	597564	9,27
Jul-07	6,06	8,25	9,186	681417,48	6111353,94	662494,32	4,24
Aug-07	6,51	8,25	9,410	681189,9	6261508,1	699163	-5
Sep-07	6,95	8,25	9,137	730320,41	6511483,05	670016,21	1,23
Oct-07	6,88	8,25	9,103	784678,6	6869123,8	729605,45	33,53
Nov-07	6,71	8,25	9,376	887157,12	7559306,24	849840,64	2,73
Dec-07	6,59	8	9,419	864004,87	7565340,8	918352,5	-3
Jan-08	7,36	8	9,291	863598,45	8265180,69	913305,3	22,01
Feb-08	7,40	8	9,051	863012,85	8347646,79	1280082,93	-3,759
Mar-08	8,17	8	9,217	972946,52	8926019,31	1167793,9	-5
Apr-08	8,96	8	9,234	1039471,38	8400169,8	1216948,86	-3
May-08	10,38	8,25	9,318	1168384,02	8280533,88	1329771,78	19,91
Jun-08	11,03	8,5	9,225	1235504,25	8205453	1578951	-15
Jul-08	11,90	8,75	9,118	1216705,92	8568822,86	1758497,48	-6
Aug-08	11,85	9	9,153	1067331,33	7679550,06	1553355,63	-9
Sep-08	12,14	9,25	9,378	974374,2	7783083,54	1507138,38	-8
Oct-08	11,77	9,5	10,995	842766,75	8868676,95	1272231,45	-66
Nov-08	11,68	9,5	12,151	697953,44	9245209,86	1201004,84	26,19
Dec-08	11,06	9,25	10,950	449169	8936185,5	922756,5	10,69
Jan-09	9,17	8,75	11,355	473957,7	9750424,95	973237,05	14,77
Feb-09	8,60	8,25	11,980	469136,8	11299056,8	967504,8	5,9
Mar-09	7,92	7,75	11,575	555368,5	10698425,25	756542	26,16
Apr-09	7,31	7,50	10,713	533400,27	955599,6	729555,3	33,33
May-09	6,04	7,25	10,340	611714,4	9602137,6	714597,4	12,78
Jun-09	3,65	7	10,225	712478	9679700,75	782008	-1
Jul-09	2,71	6,75	9,920	635772,8	9267561,6	784374,4	30,15
Aug-09	2,75	6,50	10,060	714863,6	9550762,8	781460,8	4,24
Sep-09	2,83	6,50	9,681	672442,26	9647987,79	701582,07	15,56
Oct-09	2,57	6,50	9,545	723701,9	9956962,2	726851,75	-3
Nov-09	2,41	6,50	9,480	740198,4	10684339,2	800396,4	-33
Dec-09	2,78	6,50	9,400	698420	10666368	836976	3,67
Jan-10	3,72	6,50	9,412	737241,96	10332964,2	978189,16	8,70
Feb-10	3,81	6,50	9,382	716690,98	10455300,8	946831,44	1,78
Mar-10	3,43	6,50	9,161	743873,2	10405521,85	926360,32	6,99
Apr-10	3,91	6,50	9057	763414,53	10036514,55	971816,1	6,26
May-10	4,16	6,50	9226	680325,24	10039733,2	989765,28	-5

Lampiran 2

Hasil Uji Stasioner pada Tingkat Level

Null Hypothesis: BB has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.019618	0.0000
Test critical values:	1% level	-3.517847	
	5% level	-2.899619	
	10% level	-2.587134	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(BB)
Method: Least Squares
Date: 01/24/13 Time: 19:55
Sample (adjusted): 2004M02 2010M05
Included observations: 77 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BB(-1)	-0.788782	0.112368	-7.019618	0.0000
C	1.349141	1.063569	1.268503	0.2085

R-squared	0.396500	Mean dependent var	-0.177949
Adjusted R-squared	0.388453	S.D. dependent var	11.68196
S.E. of regression	9.135462	Akaike info criterion	7.287835
Sum squared resid	6259.249	Schwarz criterion	7.348713
Log likelihood	-278.5817	F-statistic	49.27504
Durbin-Watson stat	2.074930	Prob(F-statistic)	0.000000

Null Hypothesis: INF has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-1,671162	0,4417
Test critical values:	1% level	-3,517847	
	5% level	-2,899619	
	10% level	-2,587134	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(INF)
Method: Least Squares
Date: 12/17/12 Time: 20:31
Sample (adjusted): 2004M02 2010M05
Included observations: 77 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
INF(-1)	-0,071216	0,042615	-1,671162	0,0989
C	0,591020	0,393589	1,501614	0,1374

R-squared	0,035900	Mean dependent var	0,002987
Adjusted R-squared	0,023046	S,D, dependent var	1,565625
S,E, of regression	1,547479	Akaike info criterion	3,736763
Sum squared resid	179,6020	Schwarz criterion	3,797641
Log likelihood	-141,8654	F-statistic	2,792783
Durbin-Watson stat	1,592495	Prob(F-statistic)	0,098858

Null Hypothesis: EMAS has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-9,874326	0,0000
Test critical values:	1% level	-3,517847	
	5% level	-2,899619	
	10% level	-2,587134	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EMAS)
Method: Least Squares
Date: 12/17/12 Time: 06:39
Sample (adjusted): 2004M02 2010M05
Included observations: 77 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
EMAS(-1)	-1,124010	0,113832	-9,874326	0,0000
C	1,727887	0,632704	2,730959	0,0079

R-squared	0,565223	Mean dependent var	0,041940
Adjusted R-squared	0,559426	S,D, dependent var	8,054109
S,E, of regression	5,345974	Akaike info criterion	6,216195
Sum squared resid	2143,458	Schwarz criterion	6,277073
Log likelihood	-237,3235	F-statistic	97,50232
Durbin-Watson stat	2,067576	Prob(F-statistic)	0,000000

Null Hypothesis: KURS has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-4,694706	0,0002
Test critical values:	1% level	-3,520307	
	5% level	-2,900670	
	10% level	-2,587691	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(KURS)
Method: Least Squares
Date: 12/17/12 Time: 06:40
Sample (adjusted): 2004M04 2010M05
Included observations: 75 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
KURS(-1)	-0,979338	0,208605	-4,694706	0,0000
D(KURS(-1))	0,036329	0,162349	0,223772	0,8236
D(KURS(-2))	-0,124619	0,118016	-1,055949	0,2946
C	0,137885	0,439219	0,313932	0,7545

R-squared	0,504416	Mean dependent var	-0,036187
Adjusted R-squared	0,483476	S,D, dependent var	5,275496
S,E, of regression	3,791477	Akaike info criterion	5,555247
Sum squared resid	1020,646	Schwarz criterion	5,678846
Log likelihood	-204,3217	F-statistic	24,08849
Durbin-Watson stat	2,022504	Prob(F-statistic)	0,000000

Null Hypothesis: MB has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-7,713479	0,0000
Test critical values:	1% level	-3,517847	
	5% level	-2,899619	
	10% level	-2,587134	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(MB)
Method: Least Squares
Date: 12/17/12 Time: 06:40
Sample (adjusted): 2004M02 2010M05
Included observations: 77 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
MB(-1)	-0,882986	0,114473	-7,713479	0,0000
C	1,386029	1,083879	1,278766	0,2049

R-squared	0,442370	Mean dependent var	-0,070119
Adjusted R-squared	0,434935	S,D, dependent var	12,45913
S,E, of regression	9,365632	Akaike info criterion	7,337601
Sum squared resid	6578,630	Schwarz criterion	7,398479
Log likelihood	-280,4977	F-statistic	59,49775
Durbin-Watson stat	2,045196	Prob(F-statistic)	0,000000

Null Hypothesis: RETURN has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-8,769787	0,0000
Test critical values:	1% level	-3,517847	
	5% level	-2,899619	
	10% level	-2,587134	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN)
Method: Least Squares
Date: 12/17/12 Time: 06:41
Sample (adjusted): 2004M02 2010M05
Included observations: 77 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
RETURN(-1)	-1,012038	0,115401	-8,769787	0,0000
C	4,895537	1,722338	2,842379	0,0058

R-squared	0,506284	Mean dependent var	0,028310
Adjusted R-squared	0,499701	S,D, dependent var	20,22752
S,E, of regression	14,30729	Akaike info criterion	8,185046
Sum squared resid	15352,39	Schwarz criterion	8,245924
Log likelihood	-313,1243	F-statistic	76,90916
Durbin-Watson stat	1,982499	Prob(F-statistic)	0,000000

Null Hypothesis: SBI has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-2,202414	0,2072
Test critical values:	1% level	-3,519050	
	5% level	-2,900137	
	10% level	-2,587409	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(SBI)
Method: Least Squares
Date: 12/17/12 Time: 06:41
Sample (adjusted): 2004M03 2010M05
Included observations: 76 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
SBI(-1)	-0,036610	0,016623	-2,202414	0,0308
D(SBI(-1))	0,739676	0,079444	9,310692	0,0000
C	0,319928	0,149271	2,143265	0,0354

R-squared	0,544762	Mean dependent var	-0,016053
Adjusted R-squared	0,532290	S,D, dependent var	0,401491
S,E, of regression	0,274577	Akaike info criterion	0,291503
Sum squared resid	5,503650	Schwarz criterion	0,383505
Log likelihood	-8,077100	F-statistic	43,67788
Durbin-Watson stat	1,966436	Prob(F-statistic)	0,000000

Lampiran 3,

Unit Root pada *First Difference*

Null Hypothesis: D(BB) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.104096	0.0000
Test critical values:	1% level	-3.521579	
	5% level	-2.901217	
	10% level	-2.587981	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(BB,2)
Method: Least Squares
Date: 01/24/13 Time: 19:57
Sample (adjusted): 2004M05 2010M05
Included observations: 74 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(BB(-1))	-2.392551	0.295227	-8.104096	0.0000
D(BB(-1),2)	0.685359	0.219866	3.117166	0.0026
D(BB(-2),2)	0.235859	0.115913	2.034790	0.0457
C	-0.413436	1.135834	-0.363993	0.7170

R-squared	0.781376	Mean dependent var	0.062014
Adjusted R-squared	0.772006	S.D. dependent var	20.44613
S.E. of regression	9.762753	Akaike info criterion	7.447564
Sum squared resid	6671.794	Schwarz criterion	7.572108
Log likelihood	-271.5599	F-statistic	83.39484
Durbin-Watson stat	2.054438	Prob(F-statistic)	0.000000

Null Hypothesis: D(INF) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-7,194231	0,0000
Test critical values:	1% level	-3,519050	
	5% level	-2,900137	
	10% level	-2,587409	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(INF,2)
Method: Least Squares
Date: 12/17/12 Time: 20:32
Sample (adjusted): 2004M03 2010M05
Included observations: 76 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
D(INF(-1))	-0,825135	0,114694	-7,194231	0,0000
C	0,007440	0,179186	0,041519	0,9670

R-squared	0,411563	Mean dependent var	0,014605
Adjusted R-squared	0,403612	S,D, dependent var	2,022736
S,E, of regression	1,562082	Akaike info criterion	3,755880
Sum squared resid	180,5675	Schwarz criterion	3,817215
Log likelihood	-140,7234	F-statistic	51,75696
Durbin-Watson stat	1,968966	Prob(F-statistic)	0,000000

Null Hypothesis: D(EMAS) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-10,29890	0,0001
Test critical values:	1% level	-3,521579	
	5% level	-2,901217	
	10% level	-2,587981	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EMAS,2)
Method: Least Squares
Date: 12/17/12 Time: 06:43
Sample (adjusted): 2004M05 2010M05
Included observations: 74 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
D(EMAS(-1))	-2,996900	0,290992	-10,29890	0,0000
D(EMAS(-1),2)	1,118314	0,206853	5,406317	0,0000
D(EMAS(-2),2)	0,356782	0,108131	3,299526	0,0015
C	-0,027251	0,662367	-0,041142	0,9673

R-squared	0,833629	Mean dependent var	0,203618
Adjusted R-squared	0,826498	S,D, dependent var	13,67643
S,E, of regression	5,696713	Akaike info criterion	6,370194
Sum squared resid	2271,678	Schwarz criterion	6,494738
Log likelihood	-231,6972	F-statistic	116,9151
Durbin-Watson stat	1,897369	Prob(F-statistic)	0,000000

Null Hypothesis: D(KURS) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-11,89288	0,0001
Test critical values:	1% level	-3,520307	
	5% level	-2,900670	
	10% level	-2,587691	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(KURS,2)
Method: Least Squares
Date: 12/17/12 Time: 06:43
Sample (adjusted): 2004M04 2010M05
Included observations: 75 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
D(KURS(-1))	-2,068353	0,173915	-11,89288	0,0000
D(KURS(-1),2)	0,474486	0,104025	4,561275	0,0000
C	-0,027344	0,497682	-0,054943	0,9563

R-squared	0,768326	Mean dependent var	-0,060095
Adjusted R-squared	0,761891	S,D, dependent var	8,832625
S,E, of regression	4,310003	Akaike info criterion	5,798932
Sum squared resid	1337,481	Schwarz criterion	5,891632
Log likelihood	-214,4600	F-statistic	119,3911
Durbin-Watson stat	2,290645	Prob(F-statistic)	0,000000

Null Hypothesis: D(MB) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-16,06486	0,0001
Test critical values:	1% level	-3,519050	
	5% level	-2,900137	
	10% level	-2,587409	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(MB,2)
Method: Least Squares
Date: 12/17/12 Time: 06:44
Sample (adjusted): 2004M03 2010M05
Included observations: 76 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
D(MB(-1))	-1,559417	0,097070	-16,06486	0,0000
C	-0,129083	1,202064	-0,107385	0,9148

R-squared	0,777162	Mean dependent var	0,227276
Adjusted R-squared	0,774151	S,D, dependent var	22,04707
S,E, of regression	10,47757	Akaike info criterion	7,562313
Sum squared resid	8123,675	Schwarz criterion	7,623648
Log likelihood	-285,3679	F-statistic	258,0797
Durbin-Watson stat	2,220697	Prob(F-statistic)	0,000000

Null Hypothesis: D(RETURN) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-9,397681	0,0000
Test critical values:	1% level	-3,521579	
	5% level	-2,901217	
	10% level	-2,587981	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(RETURN,2)
Method: Least Squares
Date: 12/17/12 Time: 06:44
Sample (adjusted): 2004M05 2010M05
Included observations: 74 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
D(RETURN(-1))	-2,762015	0,293904	-9,397681	0,0000
D(RETURN(-1),2)	0,932784	0,218590	4,267281	0,0001
D(RETURN(-2),2)	0,344209	0,110891	3,104019	0,0028
C	-0,293804	1,785171	-0,164580	0,8697

R-squared	0,821031	Mean dependent var	-0,231015
Adjusted R-squared	0,813361	S,D, dependent var	35,54516
S,E, of regression	15,35612	Akaike info criterion	8,353444
Sum squared resid	16506,74	Schwarz criterion	8,477988
Log likelihood	-305,0774	F-statistic	107,0431
Durbin-Watson stat	1,748681	Prob(F-statistic)	0,000000

Null Hypothesis: D(SBI) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic based on SIC, MAXLAG=11)

		t-Statistic	Prob,*
Augmented Dickey-Fuller test statistic		-3,556660	0,0090
Test critical values:	1% level	-3,519050	
	5% level	-2,900137	
	10% level	-2,587409	

*MacKinnon (1996) one-sided p-values,

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(SBI,2)
Method: Least Squares
Date: 12/17/12 Time: 06:44
Sample (adjusted): 2004M03 2010M05
Included observations: 75 after adjustments

Variable	Coefficient	Std, Error	t-Statistic	Prob,
D(SBI(-1))	-0,286541	0,080565	-3,556660	0,0007
C	-0,001408	0,032347	-0,043525	0,9654

R-squared	0,145988	Mean dependent var	0,004474
Adjusted R-squared	0,134447	S,D, dependent var	0,302714
S,E, of regression	0,281630	Akaike info criterion	0,329519
Sum squared resid	5,869351	Schwarz criterion	0,390854
Log likelihood	-10,52173	F-statistic	12,64983
Durbin-Watson stat	1,865602	Prob(F-statistic)	0,000659

Lampiran4

Penentuan Panjang Lag Optimum

VAR Lag Order Selection Criteria
Endogenous variables: RETURN SBI MB KURS INF EMAS BB
Exogenous variables: C
Date: 01/14/13 Time: 23:43
Sample: 2004M01 2010M05
Included observations: 72

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1761.413	NA	5.09e+12	49.12258	49.34392	49.21069
1	-1588.291	307.7712	1.63e+11	45.67476	47.44550*	46.37970*
2	-1528.577	94.54755	1.25e+11	45.37715	48.69728	46.69890
3	-1479.179	68.60871	1.37e+11	45.36608	50.23562	47.30466
4	-1419.855	70.85963*	1.25e+11*	45.07930	51.49823	47.63469
5	-1377.349	42.50521	2.13e+11	45.25971	53.22804	48.43192
6	-1309.344	54.78254	2.27e+11	44.73176*	54.24949	48.52080

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Lampiran 5

Uji Kausalitas Granger

Pairwise Granger Causality Tests
Date: 01/15/13 Time: 09:39
Sample: 2004M01 2010M05
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Probability
SBI does not Granger Cause RETURN	76	2.59771	0.08151
RETURN does not Granger Cause SBI		0.32586	0.72298
MB does not Granger Cause RETURN	76	0.34265	0.71106
RETURN does not Granger Cause MB		11.7586	3.9E-05
KURS does not Granger Cause RETURN	76	0.60336	0.54975
RETURN does not Granger Cause KURS		4.65307	0.01262
INF does not Granger Cause RETURN	76	1.45021	0.24138
RETURN does not Granger Cause INF		1.13078	0.32852
EMAS does not Granger Cause RETURN	76	5.46530	0.00620
RETURN does not Granger Cause EMAS		0.25563	0.77514
BB does not Granger Cause RETURN	76	0.85353	0.43023
RETURN does not Granger Cause BB		3.90201	0.02467
MB does not Granger Cause SBI	76	3.83924	0.02611
SBI does not Granger Cause MB		3.28856	0.04307
KURS does not Granger Cause SBI	76	1.81679	0.17002
SBI does not Granger Cause KURS		0.69970	0.50013
INF does not Granger Cause SBI	76	4.17216	0.01936
SBI does not Granger Cause INF		5.26400	0.00738
EMAS does not Granger Cause SBI	76	0.56160	0.57281
SBI does not Granger Cause EMAS		0.78312	0.46088
BB does not Granger Cause SBI	76	1.30329	0.27805
SBI does not Granger Cause BB		0.84367	0.43439
KURS does not Granger Cause MB	76	5.99768	0.00392
MB does not Granger Cause KURS		2.86693	0.06348

INF does not Granger Cause MB	76	1.83446	0.16719
MB does not Granger Cause INF		1.30004	0.27893
EMAS does not Granger Cause MB	76	1.91124	0.15543
MB does not Granger Cause EMAS		2.25108	0.11275
BB does not Granger Cause MB	76	0.25227	0.77773
MB does not Granger Cause BB		0.42769	0.65368
INF does not Granger Cause KURS	76	0.06474	0.93737
KURS does not Granger Cause INF		0.42028	0.65849
EMAS does not Granger Cause KURS	76	0.57327	0.56627
KURS does not Granger Cause EMAS		0.14356	0.86652
BB does not Granger Cause KURS	76	0.02306	0.97721
KURS does not Granger Cause BB		5.48734	0.00608
EMAS does not Granger Cause INF	76	1.93805	0.15153
INF does not Granger Cause EMAS		0.65958	0.52021
BB does not Granger Cause INF	76	0.48169	0.61974
INF does not Granger Cause BB		1.22885	0.29878
BB does not Granger Cause EMAS	76	1.90561	0.15626
EMAS does not Granger Cause BB		1.40728	0.25155

Lampiran6

Uji Kointegrasi

Date: 01/08/13 Time: 02:47
Sample (adjusted): 2004M03 2010M05
Included observations: 75cdvxxg after adjustments
Trend assumption: Linear deterministic trend
Series: SBI RETURN MB KURS INF EMAS BB
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No, of CE(s)	Eigenvalue	Trace Statistic	0,05 Critical Value	Prob,**
None *	0,677388	241,8692	125,6154	0,0000
At most 1 *	0,493162	155,8901	95,75366	0,0000
At most 2 *	0,438204	104,2432	69,81889	0,0000
At most 3 *	0,258248	60,42040	47,85613	0,0022
At most 4 *	0,236693	37,71618	29,79707	0,0050
At most 5 *	0,176844	17,18893	15,49471	0,0275
At most 6	0,031068	2,398600	3,841466	0,1214

Trace test indicates 6 cointegratingeqn(s) at the 0,05 level
* denotes rejection of the hypothesis at the 0,05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No, of CE(s)	Eigenvalue	Max-Eigen Statistic	0,05 Critical Value	Prob,**
None *	0,677388	85,97912	46,23142	0,0000
At most 1 *	0,493162	51,64685	40,07757	0,0016
At most 2 *	0,438204	43,82284	33,87687	0,0024
At most 3	0,258248	22,70422	27,58434	0,1864
At most 4	0,236693	20,52725	21,13162	0,0606
At most 5 *	0,176844	14,79033	14,26460	0,0413
At most 6	0,031068	2,398600	3,841466	0,1214

Max-eigenvalue test indicates 3 cointegratingeqn(s) at the 0,05 level
* denotes rejection of the hypothesis at the 0,05 level
**MacKinnon-Haug-Michelis (1999) p-values

Lampiran7

Model VECM

Vector Error Correction Estimates
Date: 01/27/13 Time: 20:25
Sample (adjusted): 2004M03 2010M05
Included observations: 75 after adjustments
Standard errors in ( ) & t-statistics in [ ]

CointegratingEq:	CointEq1
RETURN(-1)	1,000000
MB(-1)	-1,049658
	(0,16989)
	[-6,17848]
KURS(-1)	0,983012
	(0,45407)
	[2,16488]
INF(-1)	-0,356681
	(0,66964)
	[-0,53265]
EMAS(-1)	-2,067328
	(0,33576)
	[-6,15716]
BB(-1)	0,533750
	(0,15744)
	[3,39027]
SBI(-1)	1,717578
	(1,44251)
	[1,19068]
C	-13,18141

Error Correction:	D(RETURN)	D(MB)	D(KURS)	D(INF)	D(EMAS)	D(BB)	D(SBI)
CointEq1	-0,752536	0,455242	0,107059	-0,034857	0,368966	0,126346	-0,001431
	(0,14301)	(0,08877)	(0,04697)	(0,01529)	(0,05678)	(0,10287)	(0,00268)
	[-5,26209]	[5,12817]	[2,27913]	[-2,28022]	[6,49838]	[1,22817]	[-0,53465]
D(RETURN(-1))	-0,191335	-0,243927	-0,077546	0,019379	-0,184696	-0,042988	0,001625
	(0,11690)	(0,07256)	(0,03840)	(0,01250)	(0,04641)	(0,08409)	(0,00219)
	[-1,63678]	[-3,36157]	[-2,01962]	[1,55092]	[-3,97961]	[-0,51122]	[0,74258]
D(MB(-1))	-0,323303	-0,367016	-0,021169	-0,014824	0,169608	0,151266	-0,003770
	(0,17159)	(0,10652)	(0,05636)	(0,01834)	(0,06813)	(0,12343)	(0,00321)
	[-1,88411]	[-3,44565]	[-0,37558]	[-0,80821]	[2,48961]	[1,22548]	[-1,17363]
D(KURS(-1))	0,368892	-0,080910	-0,451600	-0,005450	-0,080443	-0,341472	0,012505
	(0,38247)	(0,23741)	(0,12563)	(0,04088)	(0,15185)	(0,27512)	(0,00716)
	[0,96450]	[-0,34080]	[-3,59477]	[-0,13331]	[-0,52976]	[-1,24115]	[1,74662]
D(INF(-1))	-2,429478	-0,360090	0,252191	0,040452	-0,534832	-0,852983	0,059272
	(1,19300)	(0,74055)	(0,39186)	(0,12752)	(0,47364)	(0,85817)	(0,02233)
	[-2,03644]	[-0,48625]	[0,64358]	[0,31722]	[-1,12918]	[-0,99395]	[2,65406]
D(EMAS(-1))	-1,150690	0,406515	0,177626	-0,027350	-0,143955	0,202179	-0,002389
	(0,28398)	(0,17628)	(0,09328)	(0,03036)	(0,11275)	(0,20428)	(0,00532)
	[-4,05195]	[2,30607]	[1,90426]	[-0,90100]	[-1,27679]	[0,98971]	[-0,44943]
D(BB(-1))	0,042270	-0,190245	0,006980	0,015679	-0,007199	-0,551866	0,003922
	(0,15671)	(0,09727)	(0,05147)	(0,01675)	(0,06222)	(0,11273)	(0,00293)
	[0,26974]	[-1,95575]	[0,13561]	[0,93604]	[-0,11570]	[-4,89566]	[1,33681]

D(SBI(-1))	0,285773	-0,356851	-0,605444	0,552663	5,087877	1,168068	0,596433
	(4,91825)	(3,05296)	(1,61546)	(0,52572)	(1,95264)	(3,53788)	(0,09207)
	[0,05810]	[-0,11689]	[-0,37478]	[1,05125]	[2,60564]	[0,33016]	[6,47823]
C	-0,223214	-0,158476	-0,032863	0,019336	0,129833	-0,198423	-0,003785
	(1,66230)	(1,03186)	(0,54600)	(0,17769)	(0,65996)	(1,19575)	(0,03112)
	[-0,13428]	[-0,15358]	[-0,06019]	[0,10882]	[0,19673]	[-0,16594]	[-0,12163]
R-squared	0,545944	0,541606	0,267431	0,141059	0,551189	0,301437	0,594155
Adj, R-squared	0,491728	0,486872	0,179960	0,038499	0,497600	0,218027	0,545696
Sum sq,resids	14001,78	5395,171	1510,617	159,9830	2207,023	7245,189	4,906510
S,E, equation	14,45620	8,973569	4,748319	1,545253	5,739394	10,39890	0,270613
F-statistic	10,06987	9,895299	3,057364	1,375383	10,28541	3,613903	12,26096
Log likelihood	-306,0552	-269,8153	-221,4419	-136,1240	-235,8487	-281,0190	-3,712847
Akaike AIC	8,290926	7,337245	6,064260	3,819054	6,443386	7,632079	0,334549
Schwarz SC	8,566933	7,613253	6,340267	4,095061	6,719393	7,908087	0,610556
Mean dependent	-0,181844	-0,001245	-0,014839	0,005921	-0,004334	-0,179470	-0,016053
S,D, dependent	20,27712	12,52715	5,243512	1,575886	8,097315	11,75957	0,401491

Determinant resid covariance (dofadj,)	71806719
Determinant resid covariance	29716219
Log likelihood	-1408,749
Akaike information criterion	38,91445
Schwarz criterion	41,06118

Lampiran 8

Impulse Response

Response of RETURN:							
Period	RETURN	KURS	EMAS	BB	MB	INF	SBI
1	14,45620	0,000000	0,000000	0,000000	0,000000	0,000000	0,000000
2	2,485637	-0,196008	1,418850	-2,783564	3,352138	-3,268847	-0,209630
3	5,152053	1,626210	4,500280	-1,098247	2,668529	-0,495297	-0,174404
4	6,658538	0,196991	0,282988	-0,888179	1,083211	-1,787285	0,705400
5	5,831807	0,677325	2,410189	-1,663938	2,186988	-1,108579	0,166857
6	4,845882	0,774573	2,391610	-1,314996	2,368084	-1,371512	0,361224
7	5,810654	0,765106	2,147087	-1,288237	1,844404	-1,099648	0,459702
8	5,568485	0,657876	1,955004	-1,310197	2,007132	-1,248520	0,473312
9	5,345938	0,766835	2,353107	-1,412923	2,141549	-1,144036	0,423104
10	5,437642	0,758720	2,165344	-1,289806	2,034742	-1,166317	0,491589

Response of KURS:							
Period	RETURN	KURS	EMAS	BB	MB	INF	SBI
1	-1,748642	4,414610	0,000000	0,000000	0,000000	0,000000	0,000000
2	-0,871420	2,534611	-0,194494	0,430341	-1,046234	0,290140	-0,087778
3	-0,322125	3,083050	-0,617114	0,321091	-0,447909	0,065692	-0,100842
4	-1,043761	2,856385	-0,234828	0,118818	-0,634057	-0,003163	-0,244818
5	-0,648794	3,012529	-0,299109	0,355749	-0,481106	0,063565	-0,225709
6	-0,642934	2,867138	-0,481572	0,226436	-0,698661	-0,039493	-0,229359
7	-0,651163	2,932454	-0,362937	0,278381	-0,540607	-0,002618	-0,273798
8	-0,695032	2,903022	-0,385291	0,241082	-0,593199	-0,042522	-0,272031
9	-0,616349	2,915463	-0,408347	0,279840	-0,599005	-0,026843	-0,275469
10	-0,641361	2,895706	-0,413022	0,252103	-0,595490	-0,047056	-0,282378

Response of EMAS:							
Period	RETURN	KURS	EMAS	BB	MB	INF	SBI
1	-1,209056	2,155853	5,179877	0,000000	0,000000	0,000000	0,000000
2	1,192584	1,487970	0,911991	1,402489	-1,991069	-0,619612	1,191358
3	1,456464	1,286465	1,749098	0,395913	-1,738512	-0,153022	0,854379
4	-0,220288	1,611646	2,413774	0,593037	-0,847844	-0,348786	0,859559
5	0,437865	1,653692	2,370413	0,635186	-1,407779	-0,075527	0,997390
6	0,639092	1,529135	1,877428	0,749418	-1,460116	-0,176380	1,086419
7	0,305279	1,580508	2,297104	0,538885	-1,252855	-0,109537	1,010644
8	0,275350	1,636684	2,245592	0,677070	-1,285102	-0,105424	1,066222
9	0,419210	1,593101	2,175037	0,640994	-1,368261	-0,082024	1,085765
10	0,339315	1,604940	2,196246	0,641895	-1,311056	-0,091439	1,081781

Response of BB:

Period	RETURN	KURS	EMAS	BB	MB	INF	SBI
1	0,276887	1,929077	1,576932	10,09220	0,000000	0,000000	0,000000
2	1,940495	0,039133	0,472214	5,209549	-0,063851	-1,242262	0,288402
3	1,621498	1,234297	-0,131345	7,623117	-0,825567	-0,929371	0,205968
4	1,519854	0,425249	0,738954	6,297232	0,015854	-1,015377	-0,006498
5	1,452797	0,966465	0,285560	6,994045	-0,388453	-1,087264	0,096973
6	1,775872	0,613951	0,355020	6,698326	-0,374781	-1,038443	0,036873
7	1,595170	0,769441	0,298857	6,809640	-0,298452	-1,116802	0,030827
8	1,618402	0,708966	0,405105	6,739706	-0,319827	-1,081561	0,005326
9	1,672695	0,732196	0,299938	6,805447	-0,336271	-1,108597	0,021409
10	1,663450	0,706992	0,337980	6,756684	-0,335261	-1,105342	0,003709

Response of MB:

Period	RETURN	KURS	EMAS	BB	MB	INF	SBI
1	1,585938	2,675369	0,558136	1,686794	8,227719	0,000000	0,000000
2	3,439004	1,013802	-2,649087	0,789575	1,153165	-0,747240	0,088507
3	4,745305	1,153254	-2,344653	1,745530	4,438869	-0,628576	-0,522686
4	2,679674	1,006465	-1,526820	0,420128	3,825718	-1,294527	-0,839453
5	4,132795	1,287762	-1,985825	1,586297	3,812667	-0,992382	-0,818857
6	4,190502	0,809288	-2,432322	0,957219	3,500795	-1,376346	-0,899551
7	3,987931	1,064347	-2,044454	1,174595	3,870482	-1,298055	-1,053847
8	4,036542	0,940663	-2,154104	1,084348	3,719536	-1,400531	-1,052151
9	4,245366	0,967121	-2,268038	1,178174	3,678413	-1,393500	-1,072021
10	4,159132	0,915789	-2,230759	1,096828	3,724298	-1,443324	-1,110232

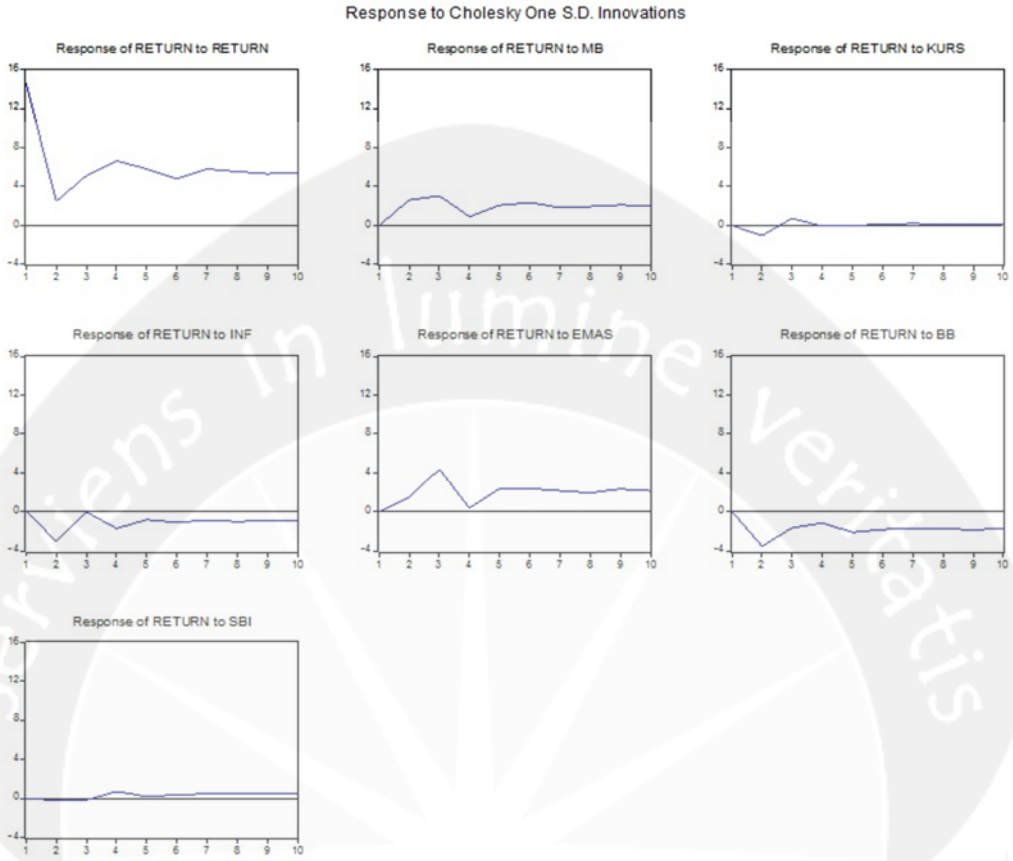
Response of INF:

Period	RETURN	KURS	EMAS	BB	MB	INF	SBI
1	-0,339844	-0,025543	0,144291	-0,013571	0,229175	1,482611	0,000000
2	-0,601262	-0,032562	0,420964	-0,020388	0,416286	1,592753	0,102610
3	-0,856647	0,083818	0,551783	-0,056367	0,472561	1,674423	0,217597
4	-0,813460	0,097823	0,519606	0,001172	0,383180	1,771413	0,310124
5	-0,867016	0,101740	0,533479	-0,027490	0,417743	1,806358	0,355865
6	-0,956732	0,132395	0,599298	-0,031771	0,438784	1,844388	0,382618
7	-0,959903	0,141049	0,598127	-0,019891	0,429158	1,869628	0,412550
8	-0,967346	0,143381	0,596450	-0,023701	0,424470	1,883834	0,429162
9	-0,991613	0,150013	0,613304	-0,025755	0,435060	1,894851	0,437717
10	-0,999567	0,154388	0,618149	-0,024394	0,433572	1,902782	0,446181

Response of SBI:

Period	RETURN	KURS	EMAS	BB	MB	INF	SBI
1	-0,139595	0,041977	0,060701	-0,026957	-0,008272	0,064397	0,208221
2	-0,262846	0,115631	0,112047	-0,015738	-0,018142	0,191280	0,331899
3	-0,361313	0,138074	0,173439	-0,022945	0,003424	0,273835	0,411357
4	-0,427052	0,170454	0,208053	-0,020620	0,009214	0,329390	0,469320
5	-0,464098	0,183329	0,227422	-0,019954	0,008691	0,368410	0,508980
6	-0,493426	0,195418	0,243003	-0,020482	0,013534	0,394247	0,535364
7	-0,515673	0,203220	0,255611	-0,021026	0,015607	0,412270	0,553333
8	-0,527760	0,208753	0,262075	-0,020182	0,016446	0,424754	0,566128
9	-0,536918	0,211992	0,266695	-0,020614	0,017005	0,432990	0,574652
10	-0,543745	0,214708	0,270657	-0,020551	0,018094	0,438822	0,580388

Cholesky Ordering: RETURN KURS EMAS BB MB INF SBI


Response to Cholesky One S.D. Innovations
Response of RETURN to RETURN
Response of RETURN to MB
Response of RETURN to KURS
Response of RETURN to INF
Response of RETURN to EMAS
Response of RETURN to BB
Response of RETURN to SBI

Lampiran 9

Variance Decomposition

Period	S,E,	RETURN	MB	KURS	INF	EMAS	BB	SBI
1	14,45620	100,0000	0,000000	0,000000	0,000000	0,000000	0,000000	0,000000
2	15,71388	87,13545	2,782827	0,437050	3,672316	0,913724	5,040832	0,017797
3	17,46338	79,25501	5,309674	0,531483	2,974296	6,952174	4,952975	0,024383
4	18,84354	80,55672	4,797178	0,458502	3,384215	6,010511	4,631798	0,161077
5	20,10386	79,18792	5,281902	0,403450	3,140698	6,664800	5,172832	0,148403
6	21,05507	77,49156	6,051218	0,368888	3,136131	7,326563	5,460908	0,164730
7	22,10785	77,19505	6,180983	0,344327	2,993278	7,566437	5,527274	0,192652
8	23,05532	76,81419	6,393149	0,317609	2,946563	7,660454	5,648742	0,219289
9	23,96503	76,06933	6,689321	0,297139	2,859872	8,020756	5,829456	0,234127
10	24,83064	75,65376	6,890106	0,280701	2,800293	8,209346	5,908515	0,257283

Cholesky Ordering: RETURN MB KURS INF EMAS BB SBI